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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/852,891	05/10/2001	Yaron Caspi	U 013454-0	5413

7590 07/02/2004

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26 West 61 Street
New York, NY 10023

EXAMINER

PATEL, KANJIBHAI B

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 07/02/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/852,891

Applicant(s)

CASPI ET AL.

Examiner

Kanji Patel

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Drawings filed on 5/10/01 have been approved by the examiner.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in ISRAEL on 5/11/00. It is noted, however, that applicant has not filed a certified copy of the FOREIGN application as required by 35 U.S.C. 119(b). **Claim**

Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Ayer et al. (US 6,320,624 B1).

For claim 1, Ayer et al. discloses a method for aligning in at least one of time and space temporally ordered sequences of images (title) comprising:

receiving a plurality of sequences of images (IS1 and IS2 in figure 1 are the sequences; see at least column 2, lines 59-65), each sequence containing a multiplicity of images (column 2, lines 59-65; sequences IS1 and IS2 may have been obtained for two contestants in a down-hill racing competition and can provide plurality of images in

each sequence), each of said plurality of sequences defining a space-time volume (column 2, lines 3-16);

providing an output indication (at least composite image sequence in figure 1 indicates output) relating at least one point in a space-time volume corresponding to one of said plurality of sequences to at least one point in a space-time volume corresponding to at least another one of said plurality of sequences (column 3, lines 22-26; see also figures 2-6).

For claim 8, see the rejection of claim 1 above.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2-7 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayer et al. (US 6,320,624 b1) as applied to claims 1 and 8 above and further in view of Hsu et al. (US 6,078,701).

For claims 2-3, Ayer et al. does not explicitly disclose finding at least one global alignment in at least one of time and space between at least a portion of a first space-time volume corresponding to one of said plurality of sequences and at least a portion of a second space-time volume corresponding to at least another one of said plurality of sequences, which said at least one global alignment matches or correlates spatial-temporal variations occurring at plural locations in said first space-time volume to spatial-temporal variations occurring at plural locations in said second space-time volume.

However, Hsu et al. discloses a method and apparatus for performing local to global multi-frame alignment to construct mosaic images comprising finding at least one global alignment in at least one of time and space between at least a portion of a first space-time volume corresponding to one of said plurality of sequences and at least a portion of a second space-time volume corresponding to at least another one of said plurality of sequences, which said at least one global alignment matches or correlates spatial-temporal variations occurring at plural locations in said first space-time volume to spatial-temporal variations occurring at plural locations in said second space-time volume (see abstract; figures 3-4; column 5, lines 7-42). It would have been obvious to a person skilled in the art to use Hsu et al.'s teachings to modify the system of Ayer et al. because such a modification will produce accurately aligned images as shown by Hsu et al. in column 2, lines 48-52.

For claims 4-7 and 9-13, see the rejection of claims 2-3 above.

Other prior art cited

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Abe (US 6,714,216 B2) discloses a video editing apparatus and method.

Olstad (US 6,447,450 B1) discloses an ECG gated ultrasonic image compounding.

Chen et al. (US 6,340,991 B1) discloses frame synchronization in a multi-camera system.

Hekmatpour et al. (US 5,982,350) discloses a compositor interface for arranging the components of special effects for a motion picture production.

Chopping (US 6,442,163 B1) discloses a depacketizer and a frame aligner including the depacketizer.

Burt et al. (US 6,393,163 B1) discloses a mosaic based image processing.

Anandan et al. (US 6,219,462 B1) discloses a method and apparatus for performing global image alignment using any local match measure.

Herman et al. (US 6,075,905) discloses a method and apparatus for mosaic image construction.

Contact information

6. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to **Kanji Patel** whose telephone number is (703) 305-4011. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 6:30 p.m. Friday off. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, **Mehta , Bhavesh**, can be reached on (703) 308-5246.

Any inquiry of general nature or relating to the status of this application should be directed to the **Group receptionist** whose telephone number is (703) 305-3800. The

Fax number for this group is (703) 872-9306.



Kanji Patel
Patent Examiner
Group Art Unit 2625
June 24, 2004